

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend as follows:

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Currently Amended) A compressive beating refiner for a pulp web comprising:
 - a pulp web in-feed including a web guide;
 - a refining zone situated directly in front of and separate from the web guide and receiving the in-fed pulp web as separated from the web guide, between two beating surfaces defined by confronting rolls; and
 - a pulp web outlet from the refining zone;wherein both of said confronting rolls rotate and have fluting or grooves.
8. (Original) The compressive pulp beating refiner of claim 7, wherein said confronting rolls rotate at substantially the same rate.

9. (Previously Presented) The compressive pulp beating refiner of claim 7, wherein said confronting rolls rotate such that the beating surfaces of the rolls move at substantially the same speed.

10. (Currently Amended) ~~The compressive pulp beating refiner of claim 7, A~~
compressive beating refiner for a pulp web comprising:

a pulp web in-feed including a web guide;

a refining zone situated directly in front of and separate from the web guide and receiving the in-fed pulp web as separated from the web guide, between two beating surfaces defined by confronting rolls; and

a pulp web outlet from the refining zone;

wherein said confronting rolls rotate such that the beating surfaces of the rolls move at substantially the same speed while the confronting rolls rotate at a different rate.

11. (Previously Presented) The compressive pulp beating refiner of claim 7, wherein a pair of confronting rolls have opposed beating surfaces defining an extended beating gap.

12. (Original) The compressive pulp beating refiner of claim 11, wherein each roll utilizes a shoe-type support to form the extended gap.

13. (Original) The compressive pulp beating refiner of claim 11, wherein each roll utilizes a beam-type support to form the extended gap.

14. (Currently Amended) The compressive pulp beating refiner of claim ~~[[7]]~~
10 , wherein both of said confronting rolls rotate and have interengagable spikes.

15. (Currently Amended) The compressive pulp beating refiner of claim ~~[[7]]~~
23, wherein both of said confronting rolls rotate and have fluting or grooves.

16. (Currently Amended) The compressive pulp beating refiner of claim [[15]] 7, wherein said fluting or grooves extend in circumferential direction.

17. (Original) The compressive pulp beating refiner of claim 16, wherein said fluting or grooves angularly traverse a roll axis.

18. (Currently Amended) The compressive pulp beating refiner of claim [[15]] 7, wherein said fluting or grooves engage one another.

19. (Currently Amended) The compressive pulp beating refiner of claim [[15]] 7, wherein said fluting or grooves is trapezoidal in shape.

20. (Currently Amended) The compressive pulp beating refiner of claim [[15]] 7, wherein said fluting or grooves have a base and the base has dewatering recesses.

21. (Currently Amended) The compressive pulp beating refiner of claim [[15]] 7, wherein at least one roll surface has a pre-defined roughness.

22. (Cancelled)

23. (Currently Amended) ~~The compressive pulp beating refiner of claim 7, A~~
compressive beating refiner for a pulp web comprising:

a pulp web in-feed including a web guide;

a refining zone situated directly in front of and separate from the web guide and receiving the in-fed pulp web as separated from the web guide, between two beating surfaces defined by confronting rolls; and

a pulp web outlet from the refining zone;

wherein the in-feed is operatively connected to a pulp thickener.

24. (Currently Amended) ~~The compressive pulp beating refiner of claim 7, A~~
compressive beating refiner for a pulp web comprising:

a pulp web in-feed including a web guide;
a refining zone situated directly in front of and separate from the web guide and
receiving the in-fed pulp web as separated from the web guide, between two beating
surfaces defined by confronting rolls; and
a pulp web outlet from the refining zone;
wherein at least one beating surface is associated with a moving weave.

25. (Original) The compressive pulp beating refiner of claim 24, wherein the moving weave is wrapped round at least one roll.

26. (Original) The compressive pulp beating refiner of claim 24, wherein the moving weave is guided over deflection rolls and is pressure-loaded against at least one roll.

27. (Cancelled)

28. (Currently Amended) A compressive beating refiner for a pulp web comprising:

a pulp web in-feed;
a refining zone for receiving the in-fed pulp web, having two beating surfaces defined by confronting rolls that directly contact and impose compressive and shear forces on the pulp web to refine the pulp, wherein the in-feed feeds and releases the pulp web to a point directly in front of the refining zone; and
a refined pulp web outlet from the refining zone;
wherein both of said confronting rolls rotate and have fluting or grooves.

29. (Currently Amended) The compressive pulp beating refiner of claim [[28]] 23, wherein the confronting rolls have hard, non-smooth beating surfaces.